Extreme Pressurization of Interweave-Layout 3D Processors to Achieve Chloroplast-Like Hemispheric Electron Parting in Transistors for Localized Zones of Increased Charge Ephemerality

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Introduction

Ibid. the publication of 13 April 2023, it was postulated by this author that the high rate of efficiency of natural photosynthesis was owed to what this author terms "hemispheric parting" of electrons in localized zones of an electron cloud. The interweaving structure of proteins in chloroplasts create Coulomb-Repulsive dynamics which, in the aggregate, create pockets of electron cloud in which electrons are less likely to exist at any given time. It was postulated that this natural structure could be replicated in artificial photovoltaic systems in order to maximize the likelihood of photon-to-electron conversion.

Abstract

Beyond application for photovoltaics, the creation of zones of relative positive charge in select zones of electron clouds of the atoms comprising transistors provides an avenue for the improvement of that dimension of processor performance dealing with charge ephemerality. Charge ephemerality; the rate at which a transistor will discharge after being charged; imposes one upper boundary on possible clock speeds. Recent theoretical advancements allowing for further miniaturization of processors as well as proposals for entirely new modes of function may be further enhanced if coupled with a new paradigm which would call for the application of non-damaging but intense squeezing pressure applied to specially designed processors.

Provided the proper design which physically mimics the interweaving structure of chloroplasts, the application of pressure (while importantly making sure to utilize non-brittle materials) may be used to bring about a state of asymmetry of electron distribution in electron clouds associated with the atoms comprising transistors.

Rather than pipelines carrying electrons away from transistors from the antipodean of the point at which electricity is introduced, pipelines would, in this regime, connect at the positively charged side, rendering that side only truly functional side of the atoms of one of transistor materials. While charge ephemerality would decrease (i.e. it would retain charge for greater lengths of time,) on the non-functional side of those atoms, the ephemerality of the functional side (which is the side to which a wire would carry current away from the transistors) would increase. Provided that the pipeline is connected to the side of the atoms rendered positive in relative charge and does not contact the part of the electron cloud with the more negative charge, the net functional

ephemerality of only the hyperbarically-induced side would dictate the charge ephemerality value of the transistor.

The excess charge on the other side of the electron clouds would have an enhanced tendency toward discharge in a predictable direction; a situation which would lend itself to strategic siphoning of electrons away from that hemisphere. In fact, the energy siphoned away might logically be re-allocated in support of acoustic generation consistent with this author's structured acoustic wave-driven heat-evacuation system from 2022. This kills two proverbial birds with but one stone given the need for the energy to "go somewhere." It is entirely unknown what sort of dynamics may be observed vis a vis the interaction of the two constituent materials making up a semiconductor transistor when such as asymmetry is imposed on all atoms of both materials. Given that an asymmetry would then exist at the boundary between the two materials in addition to the pipeline connect point, increased current may flow immediately from one material into the other and may decrease the amount of current which ultimately arrives at the next transistor in the sequence. This scheme may require that greater than desired levels of current be utilized. Although this should increase the tendency toward undesired arcing between transistors in different layers, the increased pressure may have the effect of nullifying much of this tendency toward arcing provided the interweaving structure is uniform. Any force sufficient to confine electrons to a particular section of an electron cloud is sufficient to inhibit arcing effects. The atomically local path to the anionized hemisphere and the path to the electron shunt (toward the cryogenic acoustic actuator) would both represent paths of less resistance versus jumps to other computational layers.

Conclusion

When one considers that this approach may be combined with other enhancements of this author's promulgation including intersecting helical beam lithography (i.e. the ability to penetrate a material harmlessly in order to print a transistor deep within a thick substrate without affecting above layers,) active electron evacuation by soliton wave, multiplexed processing signals on shared architectures (i.e. multiple clock speeds at once,) and acoustically-driven self-cooling designs, one must acknowledge that these techniques, particularly in conjunction with one another, provide a remarkable qualitative computational advantage to the wielder.